TEJUS
CONSULTANTS

Test Report on Cement

Project:	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor:	M/S KRDIDL
Sample ID	Cement
Date of Sample Tested:	21.06.19
Sample Supplied By:	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	35 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	349 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	4mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	26.00%	25 % to 35

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TEJUS CONSULTANTS

Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS
CONSULTANTS

TEST REPORT

Client:	BRUHAT BENGALORE MAHANAGARA PALIKE
Project:	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Consultants:	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor:	MRS KRIDL

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material:	Fine aggregate (River Sand/ M sand)	Proposed Use	PCC
Location/Source:	At Site/Plant	Date of Sampling	21.06.19
Period of Soaking:	24 hours	Date of Testing	21.06.19

Sl.No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.		651	669	663	
B	Weight of oven - dry sample gm.		641	659	651	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1685	1698	1693	
E	Bulk specific gravity	$\frac{B}{(C+A-D)}$	2.660	2.679	2.657	**2.665**
G	Absorption (%)	$\frac{(A-B)*100}{B}$	1.560	1.517	1.843	**1.640**

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS
CONSULTANTS

TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Consultants	Tejus Consultants, Bangalore
Contractor	MRS KRIDL

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	PCC
Sample Location	At Site/Plant	Date of Sampling	21.06.19
		Date of Testing	21.06.19

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	207	207	6.90	93.10	90 - 100
2.36 mm	308	515	17.17	82.83	75 - 100
1.18 mm	421	936	31.20	68.80	55 - 90
0.600 mm	480	1416	47.20	52.80	35 -59
0.300 mm	701	2117	70.57	29.43	8-30
0.150 mm	631	2748	91.60	8.40	0 - 10
Pan	252	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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Asst. Engg. N.D
AE(Civil)

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS CONSULTANTS

Authorised Signatory

TEJUS
CONSULTANTS

TEST REPORT

Clients	Bruhath Bangalore Mahanagara Palike
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	MRS KRIDL
Total Weight in gm:	3000

SIEVE ANALYSIS

Type of Material	40 mm down size	Proposed Use	PCC
Sample Location	At Site/Plant	Date of Sampling	21.06.19
		Date of Testing	21.06.19

IS Sieve Size	Weight Retained in gm	Cum. Weight Retained in gm	Cumulative Weight Retained in %	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size
80.00mm	0	0	0.00	100.00	100
63.00mm	0	0	0.00	100.00	-
40.00mm	255	255	8.50	91.50	95-100
20.00mm	1254	1509	50.30	49.70	30-70
10.00mm	936	2445	81.50	18.50	10-35
4.75mm	466	2911	97.03	2.97	0-5
Pan	89	3000	100.00	0.00	

Remarks : ✓ Satisfactory / Not Satisfactory

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Ashith. N.D
AE(W7)

CIVIL XPERTS
ISO 9001:2015
CONSULTANTS & TESTING CENTER

Highway / Building Material Testing | Structural Strengthening Solutions
Quality Control / Assurance / Audit | Proof Checking (Structural Designs & Drawings)
Soil Stabilization and Shoring Services | Non - Destructive Testing

NABL ACCREDITED AS PER ISO/IEC 17025:2005

Job No.: CECTC/KRIDL/Ward No.08/2019-20 Date: 22.06.2019

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

Client : **Bruhath Bangalore Mahanagara Palike.**
Agency : **Technical Manager,** KRIDL, Bangalore.
Name of Work : Development of secondary and tertiary Drains in Ward No. 07 Byatarayanapura
Sample Identification : 8mm, 10mm, 12mm, 16mm Fe 500 TMT Bars
Technical Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)
Date of test : 22.06.2019

Sl.No	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress (N/mm^2)	Tensile strength (N/mm^2)	Elongation, percent on gauge length
1	8	0.396	523	554	17
2	10	0.618	557	578	19
3	12	0.889	587	593	20
4	16	1.580	593	625	21

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For Civil Experts
Authorised Signature

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TEJUS
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PRECAST SLAB (CORE) TEST REPORT

Client	:	Bruhat Bangalore Mahanagara Palike
Contractor	:	MRS KRIDL
Name of Work	:	Development of secondary and tertiary drains in ward no.07 byatarayanapura
No.of Sample Tested	:	3
Date of Testing	:	24.06.19
Technical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20}. 250mm Thick

Sl.No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	100.00	180.00	3.450	2440.38	1.80	0.960	159.00	20.24	21.86	20.99	26.24
2	100.00	180.00	3.480	2461.60	1.80	0.960	158.80	20.22	21.84	20.96	26.20
3	100.00	180.00	3.470	2454.52	1.80	0.960	157.90	20.10	21.71	20.84	26.06

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Ashwini. N.D
AE(Civil)

Asst. Executive Engineer
Project Division
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TEJUS CONSULTANTS

Authorised Signatory

TEJUS
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PRECAST SLAB (CORE) TEST REPORT

Client	:	Bruhat Bangalore Mahanagara Palike
Contractor	:	MRS KRIDL
Name of Work	:	Development of secondary and tertiary drains in ward no.07 byatarayanapura
No.of Sample Tested	:	3
Date of Testing	:	24.06.19
Technical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20}. 250mm Thick

Sl.No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	180.00	3.450	9761.50	3.60	0.960	157.90	80.42	86.85	83.38	104.22
2	50.00	180.00	3.480	9846.39	3.60	0.960	157.80	80.37	86.80	83.32	104.16
3	50.00	180.00	3.470	9818.09	3.60	0.960	156.00	79.45	85.81	82.37	102.97

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Authorised Signatory

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS
CONSULTANTS

Test Report on Cement

Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	MRS KRIDL
Sample ID	Cement
Date of Sample Tested	26.06.19
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	39 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	351 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	2mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	28.00%	25 % to 35

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TEJUS CONSULTANTS

Authorised Signatory

Ashith.N.D
AE(Civil)

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

TEJUS
CONSULTANTS

Test Report on Cement

Project:	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor:	MRS KRIDL
Sample ID:	Cement
Date of Sample Tested:	26.06.19
Sample Supplied By:	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	38 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	350 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	2mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	28.00%	25 % to 35

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Consultants	Tejus Consultants, Bangalore
Contractor	MRS KRIDL

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	26.06.19
		Date of Testing	26.06.19

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	213	213	7.10	92.90	90 - 100
2.36 mm	309	522	17.40	82.60	75 - 100
1.18 mm	420	942	31.40	68.60	55 - 90
0.600 mm	485	1427	47.57	52.43	35 -59
0.300 mm	711	2138	71.27	28.73	8-30
0.150 mm	632	2770	92.33	7.67	0 - 10
Pan	230	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	MRS KRIDL

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Quarring/Source	At Site/Plant	Date of Sampling	26.06.19
Period of Soaking	24 hours	Date of Testing	26.06.19

Sl.No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.		647	680	660	
B	Weight of oven - dry sample gm.		643	672	651	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1683	1072	1692	
E	Bulk specific gravity	$\frac{B}{(C+A-D)}$	2.690	0.761	2.679	**2.043**
G	Absorption (%)	$\frac{(A-B)*100}{B}$	0.622	1.190	1.382	**1.065**

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	MRS KRIDL

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Location/Source	At Site/Plant	Date of Sampling	26.06.19
Period of Soaking	24 hours	Date of Testing	26.06.19

Sl.No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	645	679	658	
B	Weight of oven - dry sample gm.	641	671	650	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1683	1072	1692	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.705	0.761	2.697	**2.054**
G	Absorption (%) $\frac{(A-B)*100}{B}$	0.624	1.192	1.231	**1.016**

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	MRS KRIDL	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	Proposed Use	Concrete	
Sample Location	Plant/At site	Date of Sampling	26.06.19	
		Date of Testing	26.06.19	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	266	266	2.66	97.34	95 - 100
10.00 mm	4830	5096	50.96	49.04	25 - 55
4.75 mm	4225	9321	93.21	6.79	0 - 10
Pan	679	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	MRS KRIDL	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	Proposed Use	Concrete	
Sample Location	Plant/At site	Date of Sampling	26.06.19	
		Date of Testing	26.06.19	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	266	266	2.66	97.34	95 - 100
10.00 mm	4830	5096	50.96	49.04	25 - 55
4.75 mm	4225	9321	93.21	6.79	0 - 10
Pan	679	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Development of secondary and tertiary drains in ward no.07 byatarayanapura	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	MRS KRIDL	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	Proposed Use	Concrete	
Sample Location	Plant/At site	Date of Sampling	26.06.19	
		Date of Testing	26.06.19	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	267	267	2.67	97.33	95 - 100
10.00 mm	4832	5099	50.99	49.01	25 - 55
4.75 mm	4225	9324	93.24	6.76	0 - 10
Pan	676	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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